

HUNTER, A. R.: *New Technique of Spinal Anaesthesia*. *Lancet* 1: 82-83 (Jan. 20) 1945.

"By an experimental method Bieter and his colleagues . . . have worked out the concentrations of various agents required to produce anaesthesia of the exposed spinal nerves of the rabbit. I have worked out by a process of trial and error the corresponding concentrations for the intact human subject. . . . The volume of the solutions of the various drugs employed will of course depend on the capacity of the spinal canal up to the level to which it is desired to produce anaesthesia. The published work on this subject proved rather contradictory, but again by trial and error it was found that 4 c.cm. of solution would produce anaesthesia to dermatome L1; 8 c.cm. to D10; and 12 c.cm. to D6. These levels correspond approximately to Poupart's ligament, the umbilicus, and the xiphisternum. . . . On the basis of these volumes and concentrations a dosage table was elaborated. . . . The drug of choice is amethocaine hydrochloride. . . . Onset of anaesthesia is rapid, taking rather less than 5 minutes. The duration of the anaesthesia is sufficient for nearly all major surgical procedures, amounting to some 3 hours. With 'Nupercaine' the onset of anaesthesia is rather slower and the prolongation obtained by using this agent is not of much significance since there are few operations which cannot be completed under amethocaine. When procaine is employed there is a significant lengthening of the period of anaesthesia from the usual 30-40 minutes to about 70 minutes. . . . Both volume and quantity of drug may be increased by up to 20% in tall or broad patients. When very high anaesthesia is required, as for gastrectomy or cholecystectomy, the volume should be increased to at least 14 c.cm. and the dose of ametho-

caine to 14 mg. and of nupercaine to 10 mg. The volume of solution required for this technique is attained by drawing up the dose of amethocaine to be employed into a 10 or 20 c.cm. syringe and then aspirating cerebrospinal fluid into the syringe to the required volume. Only hyperbaric solutions are used and consequently the diluted solutions will also be hyperbaric; in the case of low blocks this factor will limit spread. . . . Ephedrine should be injected as with any other type of spinal anaesthesia. This technique has been used for some 200 spinal anaesthetics. The results have been in every way satisfactory." 3 references.

J. C. M. C.

AIKENHEAD, D. C.: *Sequelae Following Spinal Anaesthetic*. *Canad. M. A. J.* 52: 162-165 (Feb.) 1945.

"Headache . . . is not a serious factor in spinal anaesthesia today. First one must avoid spinal anaesthesia in patients who are subject to violent headache, migraine, etc. . . . Individuals who are fond of reading seem more prone to headaches. . . . The incidence of headache following operations with continuous spinal is no higher than operations following a single tap. . . . Aseptic meningitis . . . causes considerable worry for from 3 to 7 days but there is no record of any permanent neurological changes. . . . Hayman mentions paralysis of the sixth cranial nerve for some months with eventual recovery. This nerve is not a robust structure; it passes from under the lower border of the pons as it emerges from the brain to occupy the inner wall of the cavernous sinus, then continues through the sphenoidal fissure to supply the two heads of the external rectus muscle. During its course the nerve would be subject to any disturbance of cerebral dynamics. The paralysis of other cranial nerves must be rare. . . . I have followed appende-